

# HOW CAN THE UNITED KINGDOM CONSTRUCTION INDUSTRY IMPLEMENT SUSTAINABLE PROCUREMENT STRATEGIES?

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The aim of this study was to examine the implementation of sustainable procurement within the United Kingdom construction industry. The research identified not only a range of benefits from the implementation of sustainable procurement strategies but also barriers. The research extended a previous scoping study and employed a cross-sectional study utilising semi-structured interviews to test the initial findings generated by the literature review, involving interviews representing a cross section of the United Kingdom construction industry. Barriers to implementation include cost, inertia and lack of knowledge, amongst others. Whilst the findings from the research suggest that there are a number of barriers to implementation, companies should embrace sustainable procurement and embed strategies within the organisations to achieve maximum benefits and cost savings. Those engaging in sustainable procurement strategies identified the most benefits and did not see cost as a barrier. The impact of these cost savings should be communicated more widely in the United Kingdom construction industry to quell the myth that implementation of sustainable procurement is expensive. Further collaboration would increase participation from those within an often fragmented and adversarial United Kingdom construction industry with a lack of knowledge and resistance to change. The Government should continue to encourage the supply chain to act sustainably and continue to improve awareness of sustainable procurement strategies through the provision of additional information and development of guidance. Having said that, there is much in terms of policy and principles of sustainable procurement but the implementation of these is unclear and contributes to the fragmentation and adversarial nature of the United Kingdom construction industry.

Keywords: corporate strategy, procurement, supply chain, sustainability.

## INTRODUCTION

Sustainable procurement is defined by the UK Government in The National Sustainable Procurement Action Plan 'Procuring the Future' as "a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy whilst minimising damage to the environment" (DEFRA, 2005). It is widely considered that sustainable procurement is becoming more significant in a construction industry that is recovering from an economic downturn. CIOB (2010) identify that sustainability is now incorporated in construction projects of all size, type and value. Whilst the

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Government is using its purchasing power to encourage implementation within the United Kingdom construction industry supply chain (RIBA 2012).

The implementation of sustainable procurement is of value to the United Kingdom construction industry, not only to address requirements under ISO26000 and BS8903 but to satisfy supply chain policies. It is widely recognised that there are many barriers to implementation, this results in the questioning: why should the United Kingdom adopt the implementation of sustainable procurement.

## LITERATURE REVIEW

### Sustainable Procurement

Sustainable procurement is defined by the British Standards Institute (BSI, 2010) as "purchasing goods and items or services whose production, use and disposal minimize negative impacts and encourage positive outcomes for the environment, economy and society". Sustainable procurement delivers the main objective of sustainable development through the consideration of social issues, community benefits and Targeted Recruitment and Training (Welsh Housing Quarterly, 2012)

It is a method of delivering goods or services whilst considering broader issues such as the socio economic impact. The Department for Environment, Food and Rural Affairs (DEFRA) support the notion that sustainable procurement helps ensure value for money and lower operational costs whilst protecting the environment and bringing us wider societal benefits.

The Government, as a major construction client, has an important role in driving the sustainability agenda (CIPS 2015, OGC 2004, Levene 1995). Following the 2012 London Olympics, DEFRA issued a guidance document for those involved with procurement of construction projects. Lord de Mauley (DEFRA, 2013a) boasts how London 2012 showed how sustainable procurement could be done practically and efficiently, lessons learned should be captured and taken on board by others.

The Government and therefore those within the supply chain engaged in public sector contracts are in a strong position to influence the United Kingdom construction industry supply chain to act sustainably. Government spending is "approximately 16% of the UK's GDP (DEFRA, 2013b), central government alone buys the equivalent of 9%". The introduction of various forms of legislation, policies and procedures on a macro level is not intended to be a barrier but a method to encourage wider implementation in the United Kingdom construction industry (Figure 1)

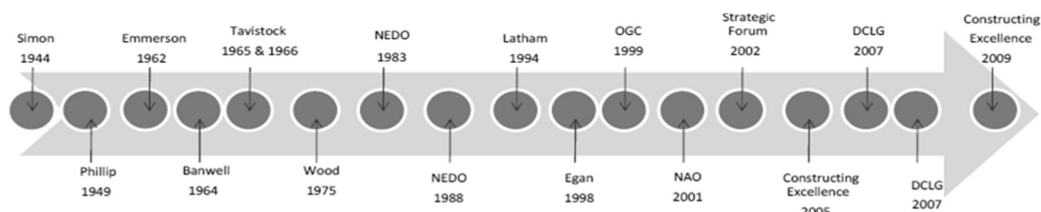


Figure 1: Key United Kingdom construction industry and Government reports

The International Standard for sustainable procurement ISO26000 and the British standard BS8903 are considered to be the globally recognised standards (Action Sustainability 2012, BSI 2010 and BSI 2015). They offer guidance for organisations to consider and implement sustainable practices within their procurement process. ISO26000 not only deals with the fundamentals of sustainable procurement but

explores the concept of complicity and the question of “Why procure sustainably?” which makes it more familiar to BS 8903 users. (McCarthy, 2015)

### **The United Kingdom construction industry**

The United Kingdom construction industry represents a wide range of companies in various guises and sectors. Although there are a number of barriers to implementation within the literature, the homogeneity of the definition of United Kingdom construction industry is challenged and therefore the application of any conclusions or recommendations from the limited published data to the United Kingdom construction industry as a whole. The United Kingdom construction industry is diverse, fragmented and without definable boundaries and characteristic problems (Cox and Ireland, 2002, Berry and McCarthy, 2011, Groák 1994). Projects differ substantially from one another and significant discontinuities in flows of personnel, materials and information are created, such discontinuities are added to by the fragmentation of the project team and professional disciplines (Bresnen *et al.*, 2003)

Collaborative working across these classifications is subsumed under the term partnering and is increasing in the United Kingdom construction industry. Partnering is not only a matter of learning new knowledge and adjusting existing working processes, it also requires discarding old routines and behaviour and overcoming vicious circles of reinforcing perceptions (Hartmann and Bresnen, 2011).

Collaborative working would suggest a common approach to sustainable procurement and its implementation within the supply chain, however, due to the fragmentation of the industry and the various barriers to implementation that exist (Constructing Excellence, 2008) this is often not the case.

Pearce (2003) recognises that when well designed, the built environment generates significant but, as yet, largely unquantified benefits in terms of human wellbeing - therefore recognising the importance of not only economic factors but the social value of construction and therefore the significance of sustainable procurement in the United Kingdom construction industry.

### **The implementation of Sustainable Procurement**

Beyond the requirements of British or International standards, sustainable procurement offers many benefits for an organisation. These are summarised under 5 key business categories within BS8903 and include: Financial drivers, Risk, Organisational policy, Stakeholder expectations and awareness and Marketing. Barriers to implementation have been highlighted by Constructing Excellence (2008) and reaffirmed in more recent research (Hemmingsen, 2013).

Cost is perceived as a major barrier for the implementation of sustainable procurement by the majority. Unless cost savings can be achieved, products will not be adopted and sustainability would only be considered if it was a specific requirement from clients or planners (Constructing Excellence, 2008). However this is actively debated in the industry, some believe that sustainable procurement actually reduces the cost of construction (CIPS 2011, Dobson *et al.*, 2013).

This debate has contributed to increased media attention surrounding sustainable procurement, heightened by the introduction of ISO 20400 and the construction of large scale public contracts including the 2012 London Olympics. As a result, clients and contractors have committed to strive for sustainable projects with green credentials and have implemented sustainable procurement strategies in order to achieve this.

Table 1: Barriers to implementation

Barrier	Cited By respondents
Cost	93%
Lack of knowledge	53%
Availability of products	33%
Inertia/reluctance to change/tradition/fear of the unknown	33%
Conflict between legislation/planning and environmental protection	33%
Poor regulation/accreditation of products	33%

(*Constructing Excellence, 2008*)

Despite this commitment, a lack of knowledge is still considered as a barrier to implementation. Whilst there is a strong desire to make progress, many organisations don't have the tools or knowledge to move forward. This is attributed to reluctance to change, strong traditions and fear of the unknown and smaller enterprises needing stronger guidance and extra assistance in adopting sustainable procurement practices (*Constructing Excellence, 2008*). It is the smaller contractors and subcontractors in the United Kingdom construction industry who experience the most barriers to implementation (Morgan, 2013). The responsible sourcing of both labour and materials is seen as a great burden (Sedex 2015, McGoldrick 2013). A draft Global framework standard - BES 6001, has been issued by the BRE (2013) for the responsible sourcing of construction products to provide clarity on the subject. However, concern surrounding the way in which "local" is defined has been raised by McCarthy (2013).

Private-sector house builders and large organisations like the NHS require the use of locally-sourced supplies to reduce their carbon footprint. (Blighty, 2013) Shifting suppliers to one who is able to provide responsibly sourced materials affect those who rely on agreed fixed rates. Some may be forced to resort to uncertified products to meet deadlines or 'cut corners' (*Constructing Excellence, 2008*) Larger contractors such as Skanska (2011) are shifting the burden of procurement to their supply chain, expecting others to adapt their business practices and only doing business with those who are recognised as responsible suppliers and subcontractors. They require stringent levels of targeted recruitment and training, whilst sustainable labour sourcing through targeted recruitment and training schemes is commonly supported (RIBA 2012) it is a burden for many in the United Kingdom construction industry. Targeted recruitment and training represents an additional cost, not only in recruitment but training and development. Although a local, more educated workforce is beneficial, costs can be high and cash flow is restricted (McGoldrick 2013, Urquhart 2013).

## RESEARCH APPROACH

The aim of this research was to further investigate the opportunities and barriers identified in the literature review in regards to the adoption of sustainable procurement in construction. The chosen methodological approach was a cross-sectional study. The research was concerned with understanding how sustainable procurement could be utilised in the future, including any barriers or limitations in its implementation and operation. The nature of cross-sectional studies is to collect primary data from a purposefully selected range of respondents.

The decision to utilise interviews was validated by the initial communications with potential respondents. Interviews offered a subjective and more accurate method of

data collection for a topic which is attitudinal based rather than numerical. The interaction within the interview process allows for the collection of detailed qualitative data that explores individuals' perspective and opinions. Table 2 illustrates the chosen interview sample.

Semi-structured interviews were preferred to enable the respondents to answer the questions in as much depth as possible. The interview questions were articulated from the provisional findings of the literature review and were collated in themes, the first questions allowed an informative data collection of individual and company details including experience of the topic. This was followed by more detailed questioning on the existence of any barriers or advantages when implementing sustainable procurement. The collection and analysis of data in the transcribed interviews allowed the establishment and confirmation of research themes which were then cross referenced, evaluated and results articulated. The coding of individual responses allowed for the collective evaluation of data within the key priori of advantages and disadvantages of implementation within the United Kingdom construction industry, addressing the findings of the literature.

*Table 2: Profile of Interview Respondents*

Respondent	Sample	Turnover	Number of Employees
A	Client	£5.8 billion	6,390
B	Contractor (General Construction)	£1.9 million	200
C	Contractor (Civil Engineer)	£4 billion	15,300
D	Manufacturer and Supplier (United Kingdom construction industry)	£334.1 million	2,132
E	Supplier (to UK House Builder)	£1million	120

## RESULTS

### Interviewees profile

All five interviewees had extensive experience working within the United Kingdom construction industry and had knowledge of commercial procurement strategies. At the time of the research, the interviewees were employees of different companies, within different sectors in the industry; contractor, client and supplier/manufacturer. Their roles ranged from site based engineers, cost consultants to head of sustainability and directors. This provided a variety of perspectives and a representative, albeit restrictive, cross section of the United Kingdom construction industry. Future research should include the synthesis of primary data from a larger sample of similarly experienced sources to provide more detailed and extensive primary data.

### Implementation of Sustainable Procurement

40% of respondents did not have a formal policy that needed to be adhered to but outlined ways in which the company implements sustainable procurement strategies, demonstrating a knowledge of the topic.

Methods of sustainable procurement were identified by all, the most common being the responsible sourcing of goods and materials in order to improve corporate image. This was mainly implemented through the use of a local supply chain, purchasing sustainable materials and working within the community. 60% of the interviewees

demonstrated a commitment to additional methods including waste management plans, the monitoring and reduction of emissions and a dedicated intranet service to sustainability.

All interviewees referred to cost implications without prompt, this subconscious awareness of cost as a barrier to implementation was further probed, identifying a difference of opinion reflective of those of Constructing Excellence (2008) and CIPS (2011) and Dobson *et al.*, (2013). A stated that the implementation of sustainable procurement strategies was wholly dependent on the cost to the company, in comparison, D stated that their approach was to buy goods and services based on the best value and not cheapest price.

We have a sustainable procurement policy which is about buying best value not cheapest price and understanding responsible sourcing throughout the supply chain.

A difference in attitude was identified according to the respondents' company and their role in the supply chain. A confirmed a difference in approach as their company switched roles between client and contractor, as a client they did not place any requirements on others, but when employed as a contractor they passed the requirements for sustainability through the supply chain. When questioned on the morality and necessity of this it became apparent that sustainability is perceived as a burden, sentiments articulated in Constructing Excellence (2008) and McGoldrick (2013). By contrast, 60% of interviewees felt that sustainability was and should be embedded into the corporate values of the company by choice and not necessity.

Sustainability is about reducing your impact on the environment, it makes good business sense to reduce the impact on the environment and society and improve corporate responsibility and image.

The requirement to act sustainably is found to be driven mainly from public sector employers, whereas private sector clients, such as a UK house builder, did not demand any sustainability credentials. It was identified that the respondents representing the contractors and clients in the industry are often able to pass the requirements of sustainable procurement through the supply chain and alleviate the burden, perceived or otherwise, reflecting the experiences of Skanska (2011)

### **Benefits of implementation**

Despite a perception of cost being a barrier to implementation, cost savings were cited as an advantage of implementation by 40% of interviewees. The use of a local supply chain resulted in more competitive prices, savings which were increased further through a reduction in programme. It is often the case that the actual cost of implementation is lower than the perceived cost and the cost is negligible in relation to turnover, between 0-3% (Morgan, 2013). It was the companies not engaged with implementation who perceived cost to be a major barrier, furthermore, these companies also cited the most barriers to implementation. The respondents representing companies that embed sustainable procurement policies throughout the business did not consider sustainability as a separate cost centre and provided evidence that the actual costs of implementation are minimal.

Most interviewees agreed that sustainable procurement improved the corporate image of a company and led to a competitive advantage when tendering, D also believed that sustainability was able to provide a good return for the business as it provided clear focus and corporate transparency.

I've also known a reduction in programme time too as the lead time on locally sourced materials is less than those that would be shipped globally or nationally

Those who were not regulated to incorporate sustainable procurement held an awareness of the issue and identified a stakeholder expectation to incorporate and embed sustainability within the ethos of the company.

### **Barriers to implementation**

A local supply chain may not always provide the best option as they may not have the financial capabilities or the necessary resources available to them. This was recognised to have a detrimental impact on corporate relationships and contribute to the adversarial and fragmented image of the United Kingdom construction industry (Cox and Ireland, 2002, Berry and McCarthy, 2011, Groák 1994).

Cost was perceived to be a disadvantage by 40% of respondents, however as discussed previously the validity of this view is questionable; the respondents citing cost as a barrier represented companies not engaging with sustainable procurement, reinforcing the view of Constructing Excellence (2008) who cited inertia or lack of knowledge as a barrier.

### **Attitudes towards approach**

All respondents recognised a moral obligation to implement sustainable procurement. Some recognised that they do this as part of their corporate social responsibility targets and the positive impact on their reputation, or because it makes business sense.

## **DISCUSSION**

A definition has been provided for sustainable procurement and a number of issues have been outlined in BS8903 that should be considered by an organisation. The Government as a major construction client have undertaken research to establish best practice and use their purchasing power to influence the supply chain. Having said this, the United Kingdom construction industry is often fragmented (Bresnen *et al.*, 2003) and those working within the industry are often reluctant to react to change. The definition of United Kingdom construction industry is homogeneous and any inferences from the data cannot necessarily apply to the entire industry. Similarly, the interview sample is restrictive and primary data obtained only provides a small view into the large and varied industry.

Barriers to implementation exist and are a cause for concern for the industry. These include cost, inertia and a lack of knowledge. Evidence has been provided within the primary data that demonstrates there is an awareness of sustainable procurement within the United Kingdom construction industry and also a stakeholder expectation to incorporate sustainability within the ethos of the company.

Beyond meeting legislative requirements, sustainable procurement offers many benefits for an organisation, summarised within ISO20400 and BS8903 and supported by both the secondary data in the literature and by interview respondents. Sustainable procurement can lead to a derivation of a more positive image, not solely to contribute to any corporate social responsibility targets, but more so acting on a moral obligation.

Contractors such as Skanska (2011) are able to shift the burden of procurement to their supply chain and where the supply chain fails to meet any requirements imposed on them, there is a negative impact on working relationships. This can occur where the engagement of a local supply chain is not practical, if they do not have the financial capabilities or the appropriate resources available to them. Nevertheless, a

local supply chain offered some the opportunity to maximise cost savings due to more competitive pricing and reduction in programme duration.

It is apparent that there is a driving force to implement sustainability within the United Kingdom construction industry, largely from the public sector and driven by the Government (Bresnen. *et al.*, 2003). However some private sector clients, such as a UK house builder, do not express many, if any sustainable procurement requirements.

Regardless of pressure from within the supply chain to implement sustainable procurement strategies, there is evidence that the majority of organisations are embracing sustainability. Those who have implemented strategies believe that the benefits outweigh any barriers.

## CONCLUSIONS

Although it has been demonstrated that there is much in terms of policy and procedure apparent through industry (Skanska, 2011) and guidance standards such as ISO20400 and BS8903, the standardisation of implementation throughout the industry is not apparent. There is a vast difference in attitudes and this is reflected in the adoption and implementation of sustainable procurement throughout the United Kingdom construction industry. The concept of complicity and the question of “Why procure sustainably?” exists for many (McCarthy, 2015) and is reflected by non-adoption of sustainable procurement within companies. This attributes to an undesirable perception that there are many barriers to implementation, the most significant being cost (Constructing Excellence, 2008) although when examined, actual costs incurred are insignificant (Morgan, 2013). It was surprising to find that the barriers cited by Constructing Excellence (2008) were mirrored in research by the authors but found to be supported exclusively by those who do not engage with sustainable procurement. Based on this sample, barriers were unfounded and spread a negativity within the industry. It is recognised that a collaborative and uninhibited drive to dispel inertia and improve a lack of knowledge may create a more cohesive and standardised approach to implementation.

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